



COLORADO
 Department of Transportation
 Freight Mobility & Safety Branch



COLORADO
 State Patrol
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The Mountain Rules



Upper Great Plains Transportation Institute Webinar
 September 26, 2023

Today's Topics

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1

Welcome and Introductions



Today's Speakers



Captain John Hahn
Commander, Motor
Carrier Safety



Craig Hurst
Manager,
Freight Mobility and
Safety Branch
CDOT

The Mountain Rules Partnership



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What is The Mountain Rules?



The Mountain Rules is a safety program that focuses on communicating and mitigating the unique challenges of operating a commercial motor vehicle in Colorado.

We recognize the challenges of steep grades, changing weather conditions, chain law requirements, planning a safe trip and more.

Our goal is inform truck drivers of these challenges and provide them with our best tools available to help them plan and execute a safe trip in Colorado.

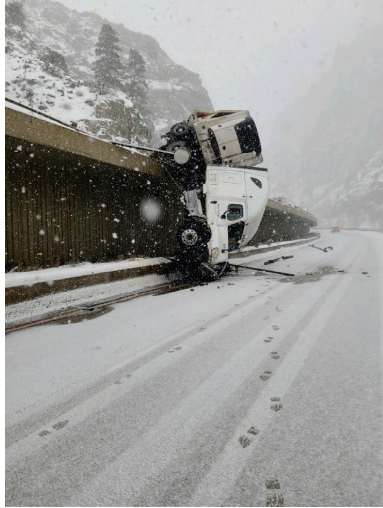


3

Identifying the Issues & Priorities

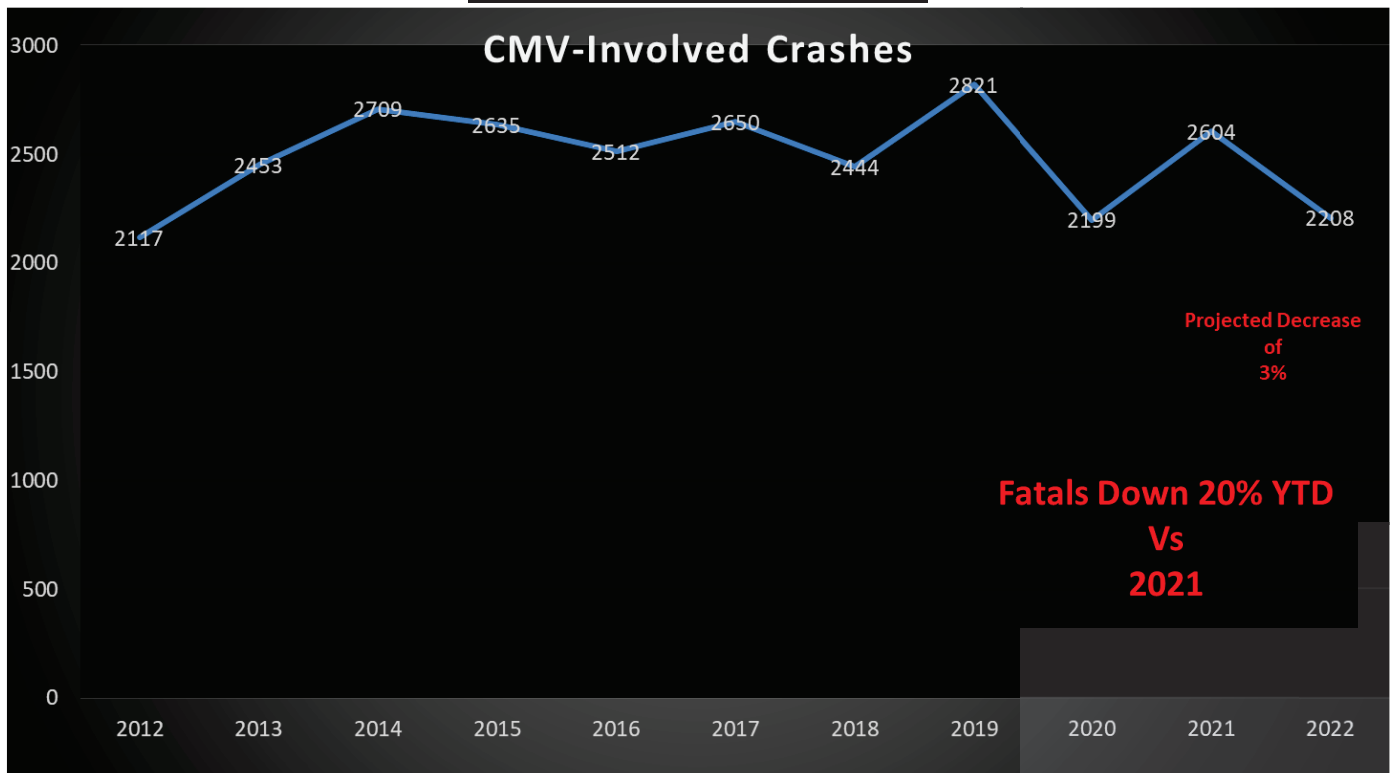


Priorities

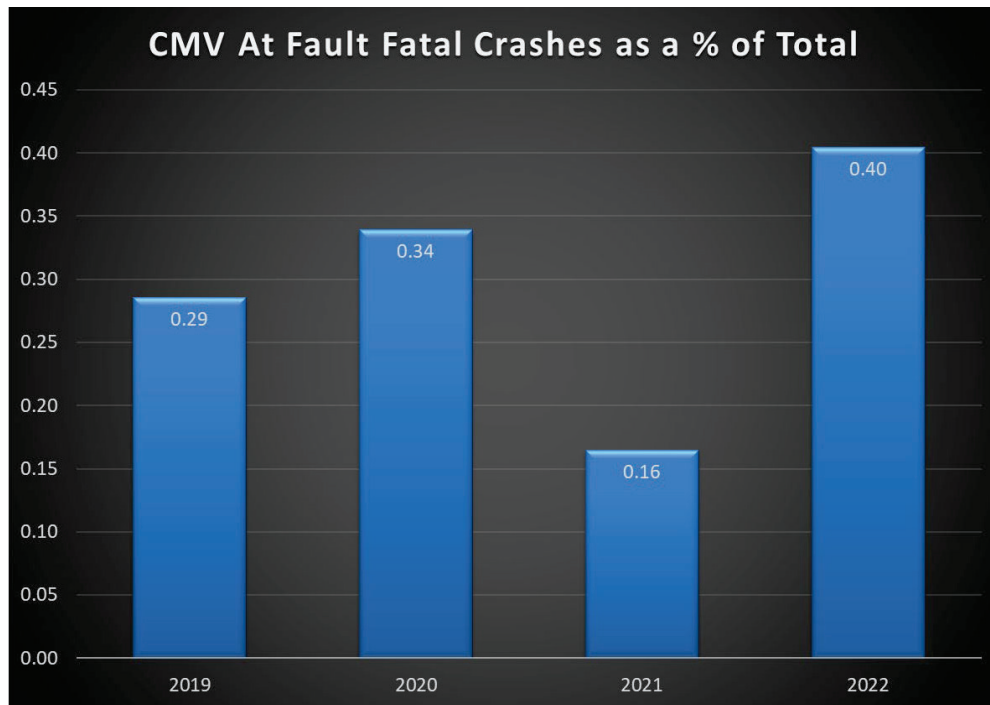


Save Lives!

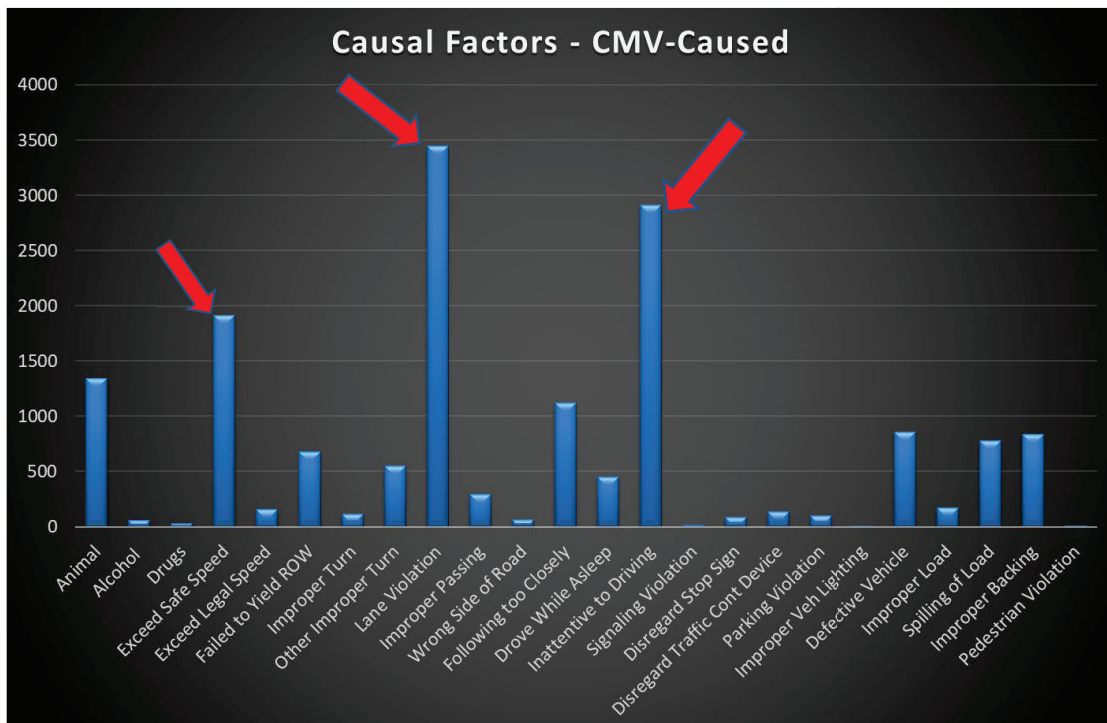
CMV Crashes by Year



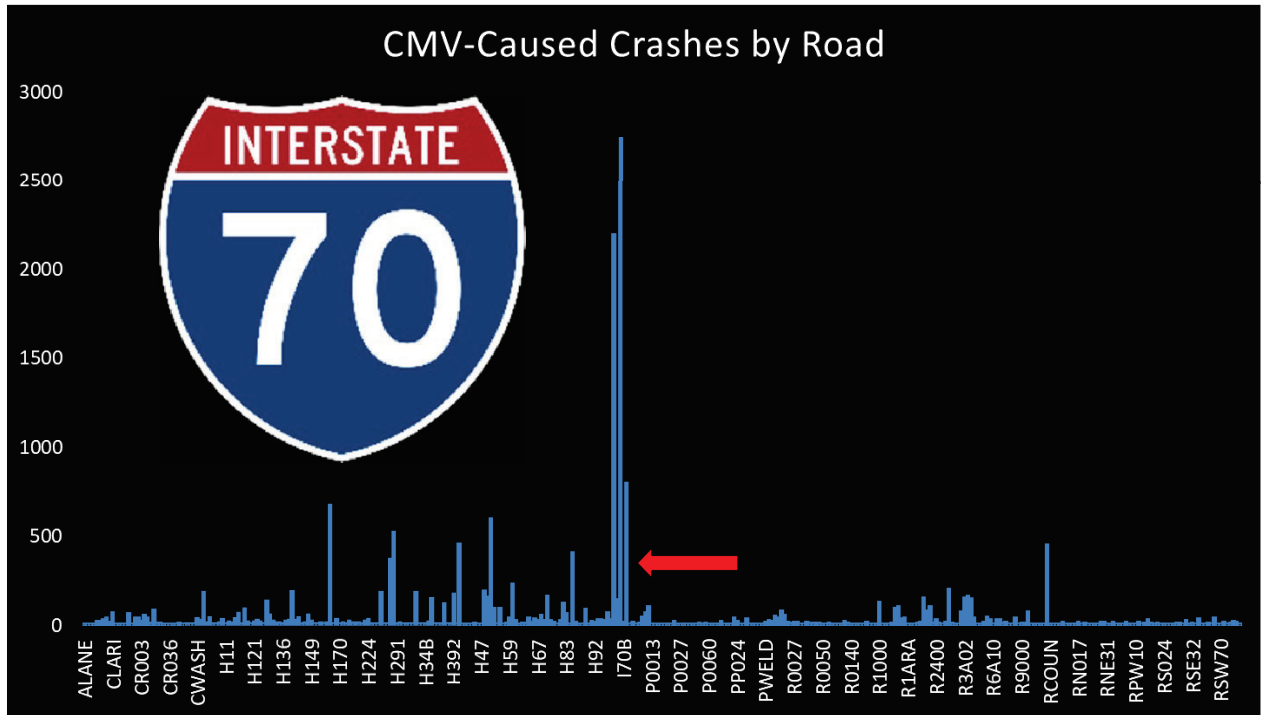
CMV Caused Fatal Crashes



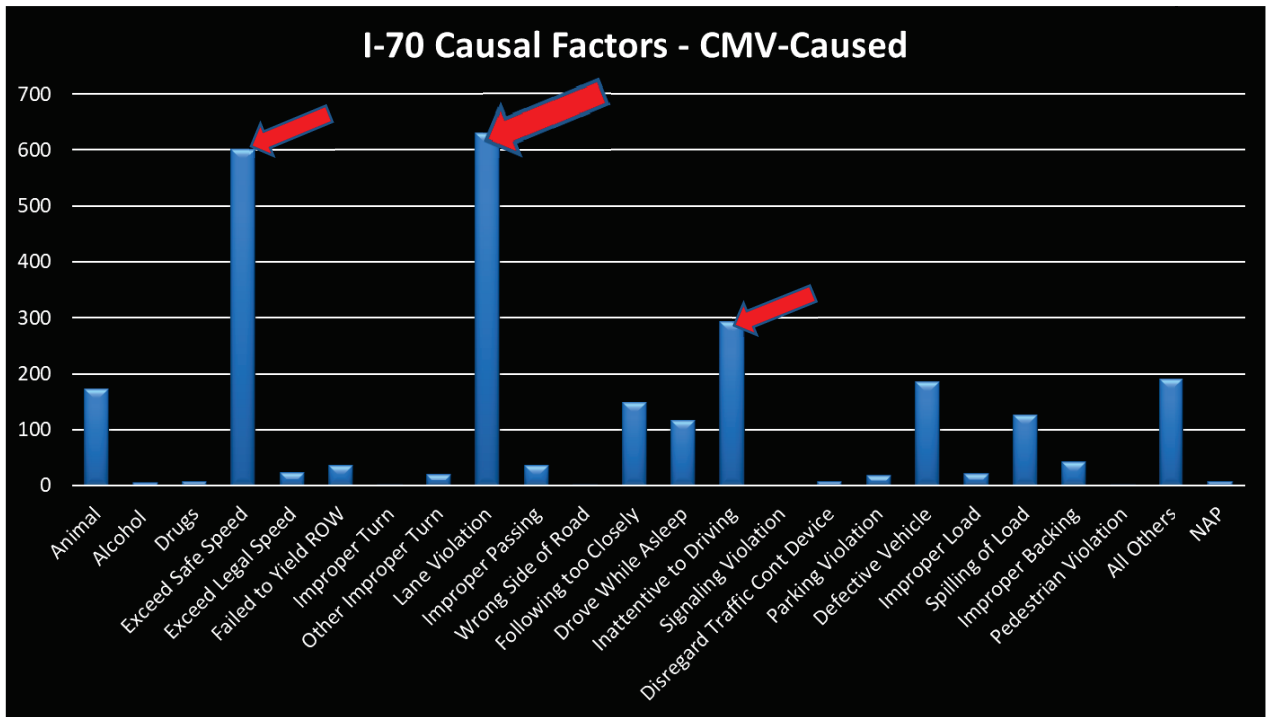
What is the Cause?



Where Are Our Issues?



I-70 Causal Conditions

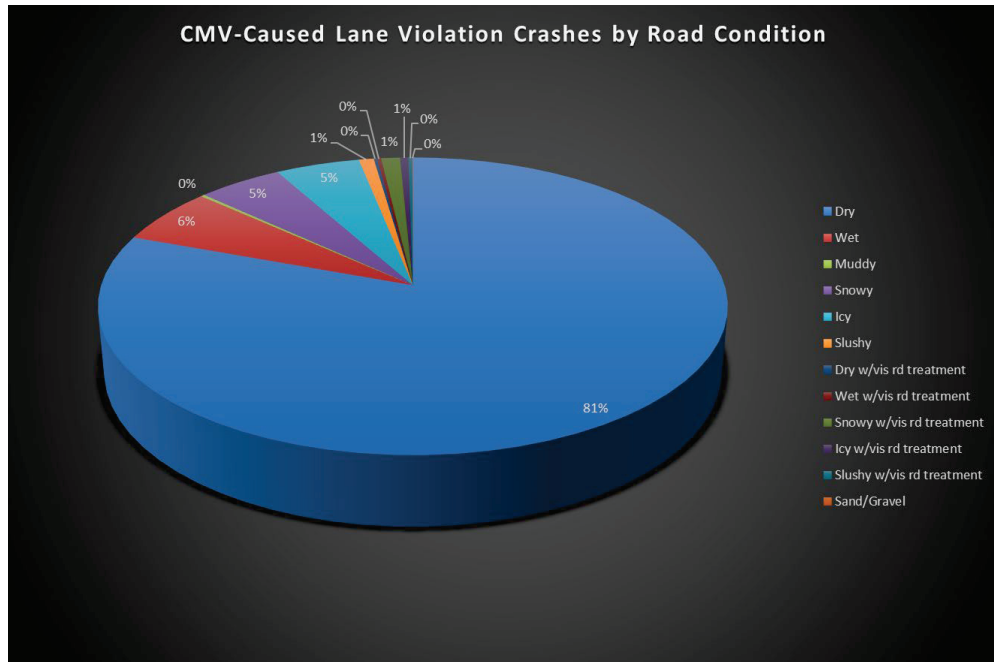


Lane Violations

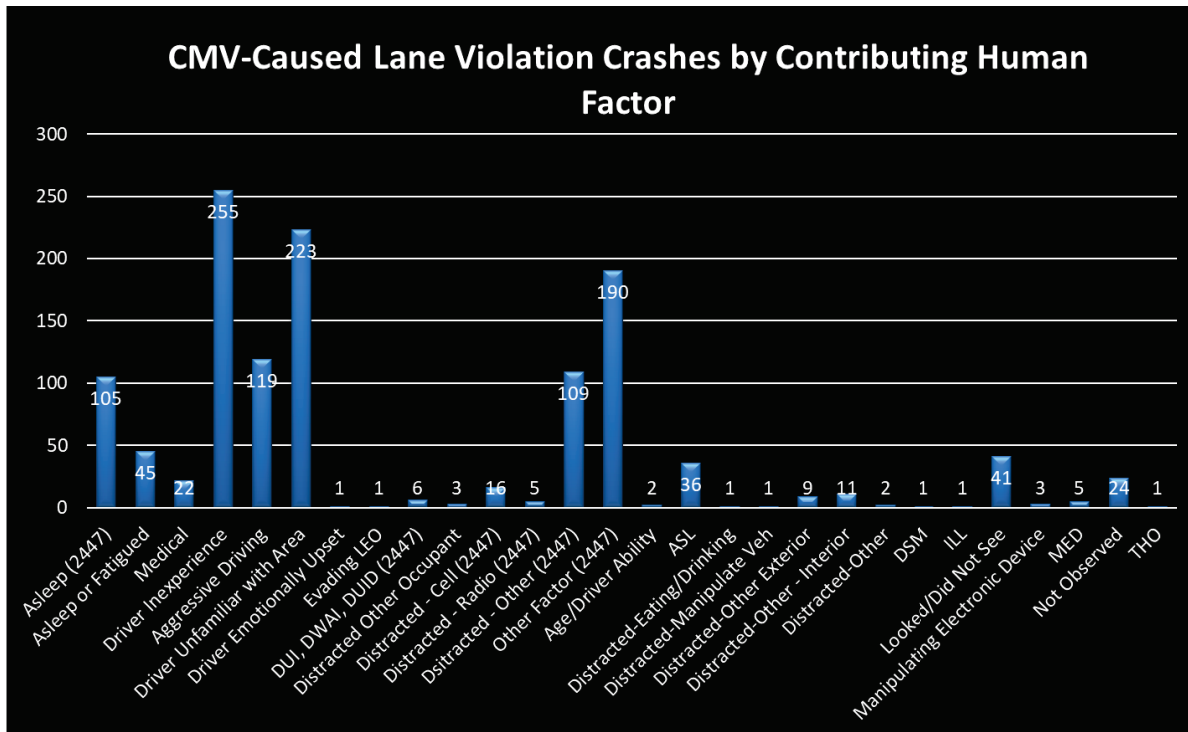
**3,446 Crashes
Since 2012**



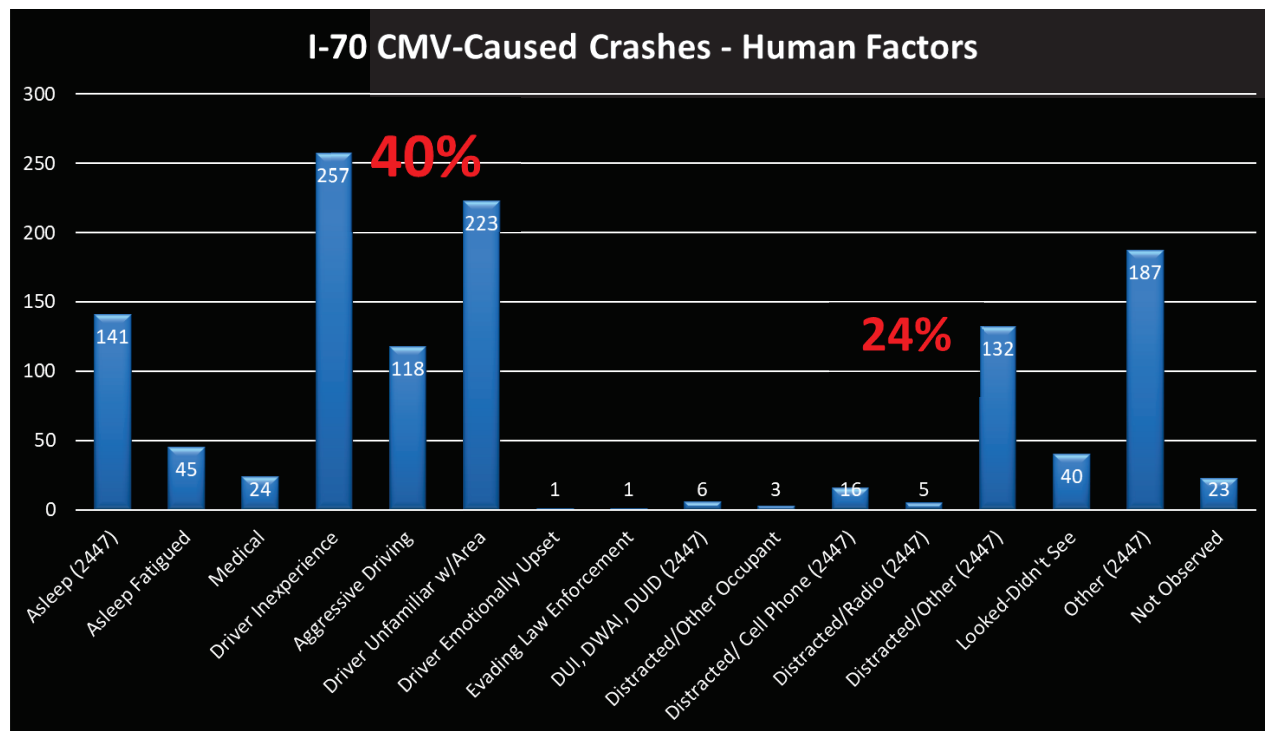
Lane Violations



Lane Violations... and Then What?



Human Contributing Factors



Our Challenges

Nearly 6 out of 10 CMV crashes on I-70 involved drivers licensed outside of Colorado.

More than 9 out of 10 runaway trucks involve drivers licensed outside of Colorado.

How do we reach them?



Path Forward

Our partnership in The Mountain Rules is key path forward.

- Continued industry engagement
- Continued interagency engagement
- Continued exploration of technology
- Cross-state awareness of issues



THE MOUNTAIN RULES
SLOW. STEADY. SAFE FOR THE LONG HAUL



4 The Mountain Rules Video Series



The Mountain Rules Overview

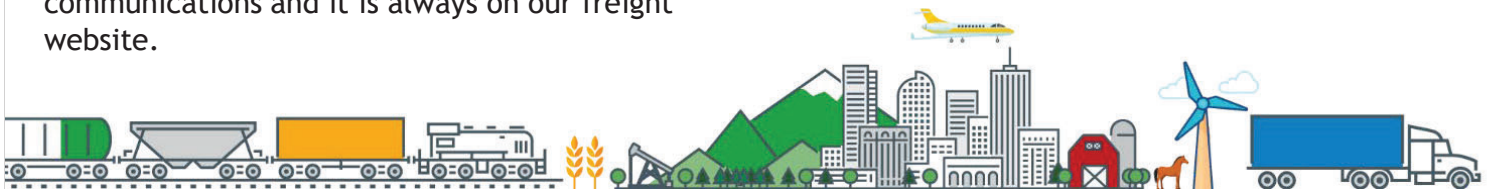
The original Mountain Rules video was released in 2021.

The video was a general overview of the many challenges a driver may face.

Very positive feedback from the industry.

A few companies requested video files that can be loaded into their online training portals for their drivers to review as annual refresher.

We currently use it for seasonal communications and it is always on our freight website.



Winter Driving



Winter Driving



- Colorado Chain Law on I-70 corridor
- Active CMV Chain Law
- How to know when chain law is in place
- How to Chain up
- Changing Conditions
- Suggested supplies
- Speed
- Giving others space (both on the road and to those chaining vehicles)



Mountain Driving & Hot Brakes



Mountain Driving & Hot Brakes

- Pre-trip, pre-trip, pre-trip!
- Trip Planning
- Low gear and engine or Jake brake.
- Brake check stations
- Brake cool down areas
- Emergency Escape Ramps (Runaway truck ramps)
- No Fee or Penalty
- I-70 is not the only challenge



Work Zones



Work Zones

- Take extra caution
- Speed
- Colorado's Move Over Law
- Flaggers
- Temporary Traffic Control Devices
- Tools on where to find the information before you start your trip



Supporting Resources

Truck Tips: Hot Brakes
COMMERCIAL VEHICLES

Prepare for the Trip

- Check brake function and adjustment before descending. Maintain a low speed in low gear, and use flashers to warn other vehicles of your reduced speed.
- Do not "ride" the truck's brakes; this will cause overheating and possible loss of brake system.
- Consider Jake Brakes (engine compression brakes) to control the speed of a heavy truck, but the best practice is to use low gears to avoid overheating brakes.
- Keep brakes cool by pulling into brake check stations, or onto the shoulder of the road if you can locate a safe spot.

Using Runaway Truck Ramps

- Maneuver the truck into the far right lane before approaching ramp.
- As the truck approaches the runaway ramp, stow straight and try to keep the wheels aligned. Stay in the center of the ramp to avoid rolling over.
- Once the truck is stopped, call 911 to report, even if there are no injuries.
- There is NO fee, penalty, or fine for using runaway truck ramps.

Arm Yourself with Knowledge

- Know the road. Take the time to familiarize yourself with mountain passes.
- Obey the speed limit. Anticipate curves. Know how far you'll travel.
- Identify public access roads. Know where to find brake and chain-up stations.
- Inspect your brakes at the summit before descending. Know where to find runaway truck ramps.
- Visit cortrip.org to find locations of runaway truck ramps and brake check stations.

Colorado Chain Up Tips
COMMERCIAL VEHICLES

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This information applies to Colorado State, Federal and Interstate highways.

- **Chains on I-70:** Commercial vehicles driving on I-70 between Delta and WP 131 and C-470 (WP 291) from Sept. 1 to May 31 must carry chains to comply with Colorado chain law. This is the only area in Colorado where chains must be carried during the specified season.
- **Definitions:** Commercial Motor Vehicles (CMVs) for the purposes of these rules means vehicles with manufacturer GVWR or GCWR of at least 16,001 lbs. used in commerce on public highways or used to transport at least 16 passengers including the driver.
- **Chain Law:** To travel on a state highway when CMV Chain Law is in effect, CMVs must have chains or Alternative Traction Devices (ATDs) on at least four of the drive wheel tires or all of the drive wheel tires if vehicle has fewer than four drive wheel tires. Buses must have chains or ATDs on two drive wheel tires.
- **Notification:** CDOT will communicate Traction and Chain Law requirements via Variable Message Signs, static signs, CDOT.org, phone messaging, email, text and other technologies. FleetCarriers will specify Make Points and exit numbers when chains are required.
- **Chaining Up:** CMV Chain Law requires all large vehicles to affix chains or ATDs to all drive tires (up to four).
- **Tire Chains/Cables:** These include (but are not limited to) metal chains consisting of two circular rods, one on each side of the tire, connected by not less than nine evenly spaced chains across the tire tread. Chains must meet the SAC certification by the National Association of Chain Manufacturers. Cables and tire cables are not permitted for use on commercial vehicles, nor are other devices not designated as approved ATDs.
- **Alternative Traction Devices (ATDs):** ATDs must be on the Colorado Department of Transportation (CDOT) Approved Product List (APL). Drive wheel sanders and pneumatically driven chains are also allowed.
- **Passing When Chain Law Is in Effect:** CMVs are restricted to the right lane unless encountering a stalled or slower moving vehicle that would result in the loss of traction. In this case, the CMV may use the left or center lane to pass if it can be done safely and without interfering with other traffic. Passes must be completed without losing traction and the CMV must return immediately to the right lane upon completion of the pass.

Frequently Asked Questions

- Are chains required for trailers? No.
- Must hazardous material tankers and transporters comply with the chain law? Yes. Vehicles placarded for hazardous loads may pass the chain up sign, and install chains when pavement is covered by snow or ice at a safe location outside the traveled portion of the highway.
- When can chains be removed? The Chain Law shall remain in effect until CDOT communicates by VMS, static sign or other notification or when construction or laws are visible on a descending grade.
- Where are chain-up stations? I-70: Eastbound: WP 176, 183, 184 (shoulder), 187 (shoulder), 195, 201, 205, 206, 210, 219, 228, 241, 274, 286, 341, 1-70 Westbound: WP 158, 163, 262, 264 (shoulder), Overbank: 228, 223, 221, 219, 213, 197, 179, 1-25 Northbound: WP 159, 1-25 Southbound: WP 172.
- What are the fines for violations? Ready for not carrying chains on I-70 between WP 131-291 from Sept. 1 to May 31 is a \$50 fine plus a \$17 surcharge. Statewide the penalty for noncompliance with winter driving restrictions is up to \$500 fine plus a \$75 surcharge or 10 days in jail and a \$1,000 plus a \$157 surcharge.

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Truck Safety Campaign

What is this Campaign?

- A strategic safety partnership: As part of the Colorado Department of Transportation (CDOT) Inland System - Whole Safety Initiative, and in light of the recent runaway truck incidents that resulted in fatalities, CDOT has established a strategic partnership with the Colorado Motor Carriers Association, the Colorado State Patrol and in-cab driver alert providers ProPass Safety Alliance and DriveZero.
- A comprehensive safety focused effort: To inform and educate in-state and in-trip state trucking companies and drivers of the challenges of driving in Colorado's mountains - what to beware of and to remind them SLOW, STEADY and SAFE FOR THE MOUNTAINS.
- The first of its kind for Colorado: The Mountain Rule will be utilizing the I-70 Mountain Corridor as a pilot area for trucks to implement new safety elements and protocols.

Why Do We Need The Mountain Rules?

- Colorado's high elevation and topography can be challenging and require motorists to proceed with extra caution. Truckers have it especially hard in the mountains, when driving a vehicle that is up to 70 feet long and weighing up to 80,000 pounds, the terrain along the mountain corridor can increase the likelihood of brake failure.
- Colorado experiences severe weather events that make driving difficult in the mountains, with high winds and storms that can bring extreme snow and hail. Colorado is also susceptible to hazards such as rockfalls, fires and floods. All of these elements can cause additional challenges and problems for trucks along the I-70 Mountain Corridor.

Driver Alerts

- The Mountain Rules is an industry informed effort. Using a focus group with the help of the Colorado Motor Carriers Association, CDOT was able to identify the best approach for providing alerts, including timing of advance notifications, locations and frequencies for reminders and the type of alerts used and on roads.
- Driver alerts are subscription-based and include in-cab alerts that notify drivers of steep grades, locations of runaway truck ramps and areas for brake checks and cooling.

Runaway Truck Ramps

- Runaway truck ramps exist to provide refuge when a vehicle loses its brakes traveling at higher speeds on steep downgrades.
- Runaway truck ramps are usually located on steep, sustained grades in mountainous areas. Long descending grades can result in reaching high vehicle speeds, and heavy truck brakes can overheat and fail through extensive use.
- Colorado has five runaway truck ramps along the I-70 Mountain Corridor. See the table on the next page for location information.





freight.colorado.gov
or
freight.cotrip.org



Groups we have contacted via outreach

- Our Partner: CMCA
- American Trucking Associations
- Truckload Carriers Association
- State Associations
- Transport Topics
- Freightwaves
- Working with RoadDog Radio
- American Association of State Highway and Transportation Officials (AASHTO)
- Western Association of State Highway and Transportation Officials (WASHTO)
- Press Release - General Denver Media Outlets



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Next Steps



Discuss Ideas and Partnerships

